## **Comparisons of Job Characteristics**

Focus Occupation: Architectural and Engineering Managers (11-9041)
Associated Occupation: Architects, Except Landscape and Naval (17-1011)

Compare Knowledge Compare Skills Compare Abilities Compare Detailed Work Activities Compare Tools and Technologies

| << | Focus occupation element is much lower             |
|----|--|
| <  | Focus occupation element is lower                  |
| 0  | Focus occupation element is at a similar level     |
| >  | Focus occupation element is at a higher level      |
| >> | Focus occupation element is at a much higher level |

### Knowledge

Similarity of Focus Occupation to Associated Occupation: 73

Focus Occupation: Architectural and Engineering Managers (11-9041)
Associated Occupation: Architects, Except Landscape and Naval (17-1011)

| Associated Occupation's<br>Key Knowledge Elements | Average<br>Rating, All<br>Occupations | Associated<br>Occupation's<br>Rating | Focus<br>Occupation's<br>Rating | Evaluation of Focus Occupation |   |
|---|---------------------------------------|--------------------------------------|---------------------------------|--------------------------------|---|
| Design  | 5.2                                   | 25.0                                 | 19.0                            | <<                             | Extensive education and/or training may be required |
| Building and Construction                         | 4.0                                   | 22.4                                 | 10.7                            | <<                             | Extensive education and/or training may be required |
| Engineering and Technology                        | 5.7                                   | 20.3                                 | 23.2                            | >                              | Current knowledge level is likely sufficient        |
| Administration and Management                     | 8.4                                   | 14.9                                 | 14.4                            | 0                              | Current knowledge level may be sufficient           |
| Public Safety and Security                        | 6.9                                   | 14.2                                 | 10.0                            | <<                             | Extensive education and/or training may be required |
| Sales and Marketing                               | 5.2                                   | 14.0                                 | 9.2                             | <<                             | Extensive education and/or training may be required |
| Law and Government                                | 5.9                                   | 13.4                                 | 8.6                             | <<                             | Extensive education and/or training may be required |
| Production and Processing                         | 6.0                                   | 11.4                                 | 10.7                            | 0                              | Current knowledge level may be sufficient           |
| Fine Arts   | 2.2                                   | 10.4                                 | 1.2                             | <<                             | Extensive education and/or training may be required |
| Personnel and Human<br>Resources                  | 5.6                                   | 9.8                                  | 10.4                            | 0                              | Current knowledge level may be sufficient           |
| Sociology and Anthropology                        | 4.1                                   | 9.6                                  | 3.4                             | <<                             | Extensive education and/or training may be required |
| Geography   | 3.9                                   | 8.2                                  | 5.7                             | <<                             | Extensive education and/or training may be required |
| History and Archeology                            | 2.6                                   | 7.2                                  | 1.6                             | <<                             | Extensive education and/or training may be required |

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

Focus Occupation: Architectural and Engineering Managers (11-9041)
Associated Occupation: Architects, Except Landscape and Naval (17-1011)

| Associated Occupation's<br>Key Skills Elements | Average<br>Rating, All<br>Occupations | Associated<br>Occupation's<br>Rating | Focus<br>Occupation's<br>Rating |   | Evaluation of Focus Occupation        |
|--|---------------------------------------|--------------------------------------|---------------------------------|---|---------------------------------------|
| Critical Thinking                              | 10.8                                  | 15.5                                 | 12.8                            | < | A higher skill level may be required  |
| Judgment and Decision<br>Making                | 9.4                                   | 14.6                                 | 12.5                            | < | A higher skill level may be required  |
| Complex Problem Solving                        | 9.1                                   | 14.5                                 | 13.0                            | < | A higher skill level may be required  |
| Operations Analysis                            | 5.0                                   | 12.7                                 | 13.9                            | 0 | Current skill level may be sufficient |
| Coordination                                   | 9.1                                   | 12.6                                 | 13.3                            | 0 | Current skill level may be sufficient |
| Mathematics                                    | 6.2                                   | 11.7                                 | 11.7                            | 0 | Current skill level may be sufficient |
| Negotiation                                    | 6.8                                   | 10.8                                 | 10.2                            | 0 | Current skill level may be sufficient |
| Management of Financial Resources              | 3.3                                   | 9.5                                  | 9.7                             | 0 | Current skill level may be sufficient |
| Management of Material Resources               | 3.7                                   | 8.8                                  | 9.2                             | 0 | Current skill level may be sufficient |

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

### **Abilities**

#### Similarity of Focus Occupation to Associated Occupation: 92

Focus Occupation: Architectural and Engineering Managers (11-9041)
Associated Occupation: Architects, Except Landscape and Naval (17-1011)

| Associated Occupation's<br>Key Abilities Elements | Average<br>Rating, All<br>Occupations | Associated<br>Occupation's<br>Rating | Focus<br>Occupation's<br>Rating | Evaluation of Focus Occupation |  |  |
|---|---------------------------------------|--------------------------------------|---------------------------------|--------------------------------|--|--|
| Visualization                                     | 7.5                                   | 16.9                                 | 10.1                            | <<                             | Extensive improvement in abilities may be required |  |
| Deductive Reasoning                               | 10.6                                  | 16.5                                 | 13.9                            | <                              | Some improvement in abilities may be required      |  |
| Near Vision                                       | 11.1                                  | 15.7                                 | 12.5                            | <<                             | Extensive improvement in abilities may be required |  |
| Problem Sensitivity                               | 11.1                                  | 15.5                                 | 13.9                            | <                              | Some improvement in abilities may be required      |  |
| Fluency of Ideas                                  | 7.6                                   | 15.2                                 | 10.1                            | <<                             | Extensive improvement in abilities may be required |  |
| Originality                                       | 7.6                                   | 15.0                                 | 10.5                            | <<                             | Extensive improvement in abilities may be required |  |
| Information Ordering                              | 9.9                                   | 14.8                                 | 12.0                            | <                              | Some improvement in abilities may be required      |  |
| Category Flexibility                              | 9.0                                   | 13.9                                 | 11.4                            | <                              | Some improvement in abilities may be required      |  |
| Number Facility                                   | 6.3                                   | 13.4                                 | 11.2                            | <                              | Some improvement in abilities may be required      |  |
| Far Vision  | 7.8                                   | 13.0                                 | 8.4                             | <<                             | Extensive improvement in abilities may be required |  |

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

## **Activities that Both Occupations Have in Common**

Similarity of Focus
Occupation to Associated
Occupation: 81

Focus Occupation: Architectural and Engineering Managers (11-9041)
Associated Occupation: Architects, Except Landscape and Naval (17-1011)

| Work Activities  | Exclusivity of Activity |
|--|-------------------------|
| Advise clients or customers                                      | 19                      |
| Advise clients regarding engineering problems                    | 67                      |
| Analyze project proposal to determine feasibility, cost, or time | 69                      |
| Bid engineering, construction or extraction projects             | 80                      |
| Communicate technical information                                | 4                       |
| Confer with engineering, technical or manufacturing personnel    | 25                      |
| Coordinate engineering project activities                        | 71                      |
| Delegate authority for engineering activities                    | 73                      |
| Develop policies, procedures, methods, or standards              | 21                      |
| Direct and coordinate activities of workers or staff             | 3                       |
| Direct personnel in support of engineering activities            | 74                      |
| Estimate cost for engineering projects                           | 69                      |
| Estimate time needed for project                                 | 64                      |
| Evaluate costs of engineering projects                           | 70                      |
| Evaluate engineering data  | 60                      |
| Lead teams in engineering projects                               | 73                      |
| Make presentations   | 13                      |
| Manage contracts   | 73                      |
| Prepare reports  | 8                       |
| Prepare technical reports or related documentation               | 22                      |
| Read blueprints  | 10                      |
| Read technical drawings  | 7                       |
| Resolve engineering or science problems                          | 46                      |
| Understand engineering data or reports                           | 48                      |
| Use project management techniques                                | 47                      |
| Use scientific research methodology                              | 21                      |
| Use technical regulations for engineering problems               | 61                      |
| Write business project or bid proposals                          | 48                      |

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

# **Tools and Technologies that Both Occupations Have in Common**

Similarity of Focus
Occupation to Associated
Occupation: 60

Focus Occupation: Architectural and Engineering Managers (11-9041)
Associated Occupation: Architects, Except Landscape and Naval (17-1011)

Tools and Technologies Exclusivity

| Business function specific software                              | 1 |
|--|---|
| Computers  | 1 |
| Content authoring and editing software                           | 1 |
| Content management software                                      | 6 |
| Data management and query software                               | 1 |
| Finance accounting and enterprise resource planning ERP software | 2 |
| Industry specific software                                       | 1 |
| Information exchange software                                    | 1 |
| Network applications software                                    | 1 |

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.